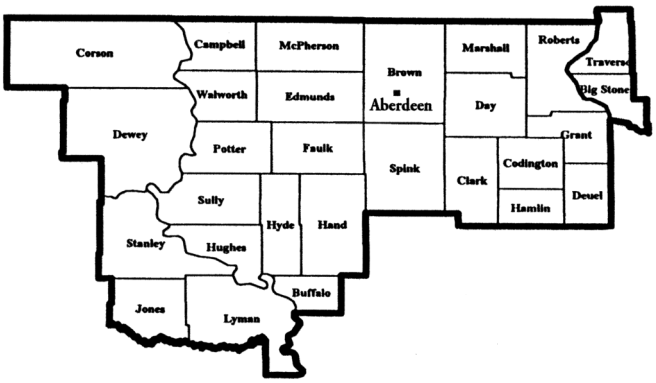

SKY SCANNER

National Weather Service Forecast Office
Aberdeen, South Dakota

July 2007

Summer Heat Safety

The dog days of summer are upon us again, so now is a good time to review the dangers of summertime heat. Here are some ways to keep yourself safe and healthy during the hottest days of the year, as recommended by the American Red Cross.

* **Never** leave children or pets alone in closed vehicles. Temperatures inside a closed car can exceed 100 degrees in a matter of minutes.

* Drink plenty of water—even if you do not feel thirsty—to keep from becoming dehydrated.

* Avoid strenuous activity. If you must do strenuous activity, try to do it during the cooler parts of the day.

* Wear light-colored clothing, which helps to deflect heat from the body.

* Take regular breaks and find a cool place when engaged in outdoor activity.

* Eat small meals and eat more often. Try to avoid high-protein foods, which increase metabolic heat.

* Stay indoors when possible.

* Seek immediate medical attention if you or someone around you appears to suffer from heat related illness.

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When significant or unusual weather events occur, give us a call! We're always happy to hear from the public, especially if you're calling to report hail, strong winds, or tornadoes. Don't wait until the next day...call us when it's happening.

Northeast South Dakota Flooding

By Glenn Neilsen

Major flooding occurred in early May across Brown and Spink counties of Northeast South Dakota. From May 4th through the 6th, 8 to 11 inches of rain fell. In Aberdeen, streets in northern sections of the city were under 3-4 feet of water and over 75 percent of the basements in the city were flooded. Redfield and other communities in Spink county had similar problems, with some businesses flooded due to excessive rainfall.

On the James River, minor to moderate flooding began on May 2nd. Most of the flooding was on agricultural lands and there were some township and county roads closed. At the Columbia gauge, the river crested at 16.8 feet, or 3.8 feet above flood stage. This was the 6th highest crest in 22 years. The James River at Columbia continues to be above flood stage and is not expected to fall below until August 1st. Near Stratford, the James River crested at 17.7 feet, or 3.7 feet above flood stage. This was the 7th highest crest in 34 years. The river continues to be above flood stage and is not expected to fall below until the middle of August. In Ashton, the James rose to 17.3 feet, or 4.3 feet above flood stage. This was the 8th highest crest in 50 years. The James at the Ashton site fell below flood stage on July 2nd.

Dakota and 10th looking south in Aberdeen on the morning of May 6th

Highway 12 near the Aberdeen airport on the morning of May 6th

2007 John Campanius Holm Award Winners
Diane and Rick Knutson

by Ken Gillespie

Recognizing 25 years of service to America, NOAA's National Weather Service has named rural Summit, S.D., residents Diane and Rick Knutson 2007 recipients of the agency's John Campanius Holm Award for outstanding service in the Cooperative Weather Observer Program. The award is the agency's second most prestigious and only 25 are presented each year to cooperative weather observers from around the country.

"Cooperative observers are the bedrock of weather data collection and analysis," said retired U.S. Air Force Brig. Gen. David L. Johnson, director of NOAA's National Weather Service. "Satellites, high-speed computers, mathematical models, and other technological breakthroughs have brought great benefits to the Nation in terms of better forecasts and warnings. But without the century-long accumulation of accurate weather observations taken by volunteer observers, scientists could not begin to adequately describe the climate of the United States. We cannot thank Rick and Diane Knutson enough for their years of service to America."

The Knutsons assumed reporting duties at the Summit 1W observing site June 1, 1982, reporting daily temperature and precipitation data and snowfall data in winter. Rick and Diane took over the site started by the Knutson family in 1956. Rick and Diane have provided more than 9,000 reports over the years while the family can claim more than 18,600 reports.

The Knutsons provide real-time ground truth during significant weather events and provide critical rainfall data to the local office of the Farm Services Agency. Their dedication and attention to detail have contributed significantly to the accuracy of forecasts and protection of life and property. Letters of support for their award nomination from Sen. John Thune and Rep. Stephanie Herseth demonstrate the Knutson's standing as "pillars of the community. "

Weather records retain their importance as time goes by. Long and continuous records provide an accurate picture of a locale's normal weather, and give climatologists and others a basis for predicting future trends. These data are invaluable for scientists studying floods, droughts and heat and cold waves. At the end of each month, observers mail their records to the National Climatic Data Center for publication in "Climatological Data" or "Hourly Precipitation Data."

In 2007 NOAA, an agency of the U.S. Commerce Department, celebrates 200 years of science and service to the nation. Starting with the establishment of the Survey of the Coast by Thomas Jefferson in 1807, much of America's scientific heritage is rooted in NOAA. The agency is dedicated to enhancing economic security and national safety through the prediction and research of weather and climate-related events and information service delivery for transportation, and by providing environmental stewardship of our nation's coastal and marine resources. Through the emerging Global Earth Observation System of Systems (GEOSS), NOAA is working with its federal partners, more than 60 countries and the European Commission to develop a global monitoring network that is as integrated as the planet it observes, predicts and protects.

Spring Weather Summary

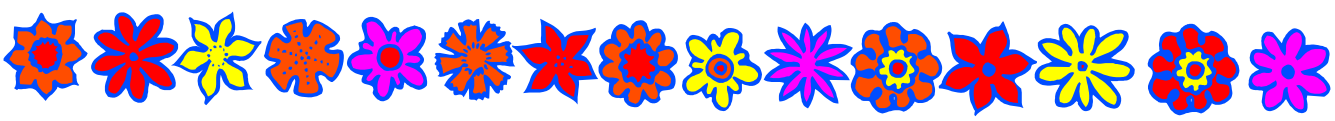
By Scott Doering

The weather during April, May, and June was certainly interesting. We had everything from record cold and late season snow in April to an overabundance of rainfall in May and early June. After an above-normal Spring for moisture, the second of June would be the start of a dry period.

April was characterized by cold and snow. Record snowfall was set on April 2nd when 3 inches fell in Mobridge and 2.3 inches fell in Aberdeen. Other snowfall amounts that day include 8 inches in Roscoe and Britton, 6 in Browns Valley MN, 5 in Leola and Ipswich, and 4.1 in Wilmot. Following this fresh snowfall were record to near-record lows across the area. Mobridge set a record low on the 4th when the temperature dropped to 11 degrees above zero. Aberdeen also set record lows on the 5th and 6th when both days saw the temperature reach 6 degrees above zero. The previous record low on the 6th was 10 degrees, set way back in 1899. The first ten days of April was one of the coldest on record for the time period. The average temperature in most locations was in the 20s, which would be normal for the end of February. On the 10th snow made a late season return. Some snowfall amounts include 12 inches one mile west of Summit, 7.5 northeast of Bryant, 6.5 inches in Sand Lake, 7 in Clear Lake, 4.5 in Aberdeen, and 4 inches in Roscoe and Miller. This would be the end of the snow season and the continuation of what would be a very wet Spring.

May was certainly a wet month, with Aberdeen leading the way with 12.23 inches of rainfall. However, May 1906 holds the May record as well as the monthly all time record with 12.39 inches of rain. There were several daily record rainfall set throughout the month as well. On the 5th, a daily record was set in Aberdeen when 7.62 inches fell. This would lead to major flooding along the James River Valley in Brown and Spink Counties. Sisseton also set a record on the 5th when 1.62 inches fell. Other high rainfall amounts on May 5th include, 7.40 in Redfield, 4.47 in Clark, 2.50 at White Rock Dam, and 1.61 on Murdo. Pierre set a rainfall record on the 22nd when 1.98 inches fell. Aberdeen broke another rainfall record on the 30th when 2.59 inches fell. An extended period of rainfall brought an end to May. Rain would be reported in most locations from the 27th of May through the 3rd of June. Some rainfall totals during that time period include 7.21 inches in Wheaton MN, 4.60 in Browns Valley MN, 4.02 one East of Hosmer, 3.90 one North of Ortonville MN, 3.70 in Sisseton, 3.20 in Roscoe, and 2.80 in Hecla.

The first half of June would continue to be wet. By the 15th, however, a dry weather pattern would take control of the area with most locations seeing less then an inch of rain through the end of the month. Dry conditions have continued through the month of July.



StormReady: What it is, and how it can help your community

By Dave Hintz

As Americans, we live in the most weather-prone country in the world. On average, each year we deal with 10,000 thunderstorms, 5,000 floods, 1,000 tornados, and 6 major hurricanes. Did you know that nearly 90 percent of the Presidential Disaster Declarations are related to weather that results in around 500 deaths annually and nearly $14 billion in damage.

In 1999, StormReady was developed. StormReady is a program in which the NWS helps communities, counties and businesses develop the necessary safeguards to help protect themselves against the ravages of severe weather. StormReady helps local leaders and emergency managers strengthen local safety programs and helps communities develop the communication and safety skills needed to protect lives and property, before and during the event.

Receiving StormReady recognition won't make your county or community storm proof, but it will enable the county or community to be better prepared when severe weather strikes. StormReady is a free program, but there may be some cost associated with the upgrading of communication infrastructure. There is no grant money associated with StormReady; however, the Insurance Services Organization (ISO) may provide Community Ratings System (CRS) points to StormReady communities, which may be applied toward lowering NFIP flood insurance rates.

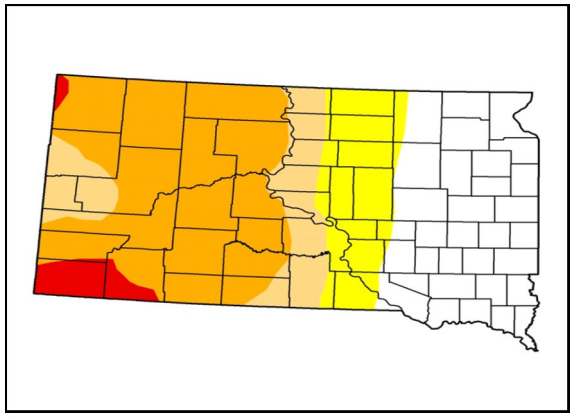
If your community, county or business is interested in hearing more about the StormReady program, visit the StormReady website at http://www.stormready.noaa.gov. You can also call our Warning Coordination Meteorologist Jennifer Zeltwanger, at 605-225-0519 for more information.

StormReady communities are better prepared to save lives from severe weather through better planning, education, and awareness. No community is storm proof, but StormReady can help communities save lives.

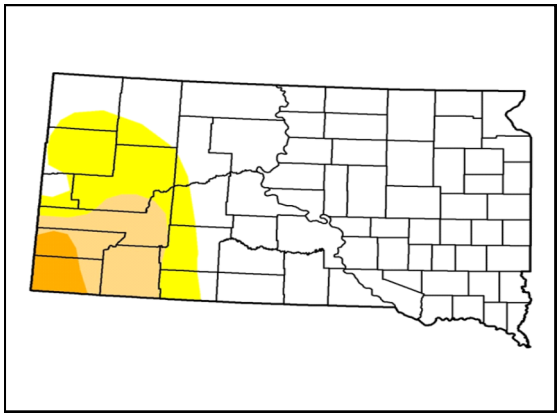
Drought Conditions Trying to Creep Back

by Travis Tarver

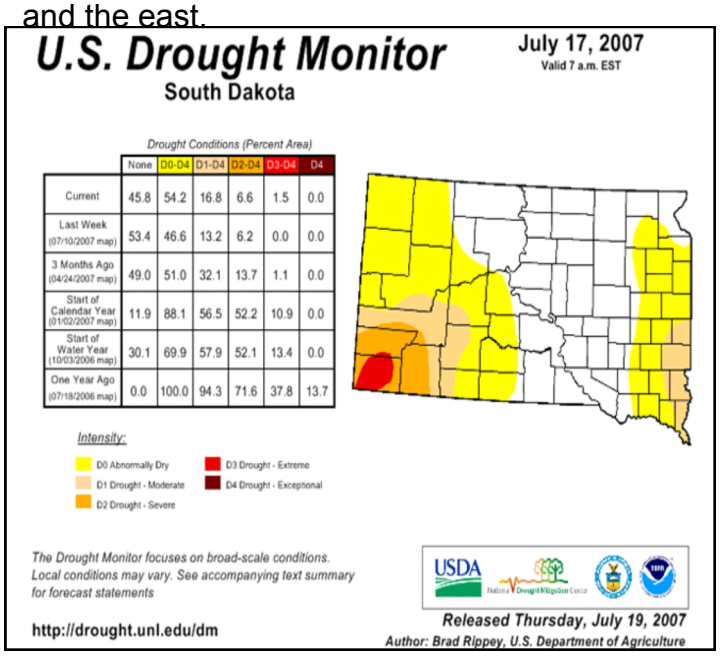
After a wet Spring across much of central and eastern South Dakota, conditions have become dry and temperatures have been increasing since mid-June. April through mid-June saw frequent rounds of rain for many locations, some of which was heavy. Many locations across the area saw above normal precipitation from April through June. Below is an image of the Drought Monitor for South Dakota on March 27, 2007... right before the wet months of April and May. Central South Dakota was still experiencing moderate to severe drought, with the eastern portion of the state near normal for precipitation.



After the above normal rainfall from April through mid-June, the drought conditions improved dramatically across central South Dakota. Here is an image of the South Dakota Drought Monitor on June 12, 2007. The entire Aberdeen Forecast area was not in a drought category, not even D0 (abnormally dry). This marks the first time this had happened since October 16, 2001.



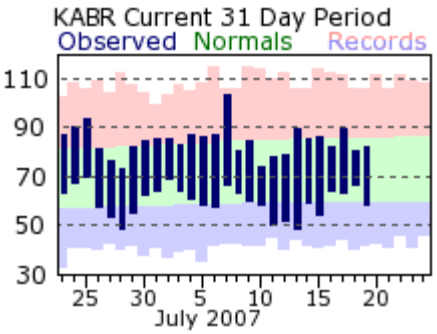
Since the end of June, the pattern has trended drier and drought conditions are trying to creep back into the area. June precipitation totals were actually below normal for Aberdeen, Watertown, Mobridge, Kennebec and Timber Lake. July so far has proved even drier than June, with most all reporting locations in the Aberdeen Forecast Area experiencing below normal precipitation. Kennebec has only received 0.09 inches of precipitation so far in July, which is well below the normal of 2.78 for the month. The driest July on record for Kennebec occurred in 1906, when only 0.18 inches of precipitation was recorded. In Watertown, only 0.14 inches of precipitation has been recorded through July 18. This is 1.64 inches below normal for the month. The driest July on record occurred in 1957 when only 0.46 inches fell. It has also been dry in Mobridge, where only 0.15 inches of precipitation have occurred. This is nearly an inch and a quarter below normal. Although the driest July on record had only 0.05 inches in 1988, they are on pace to be the second driest July on record. In July of 1973, only 0.32 inches was recorded. Below is an image of the most recent Drought Monitor released on July 19, 2007, which shows D0 (abnormally dry) conditions creeping back into the area from both the west and the east.

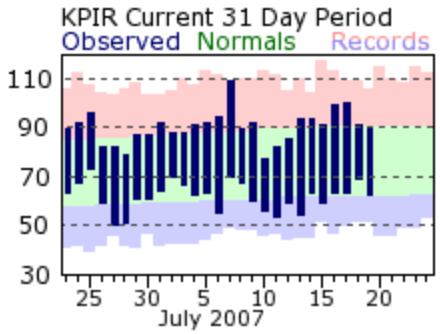


Historical Climate Information

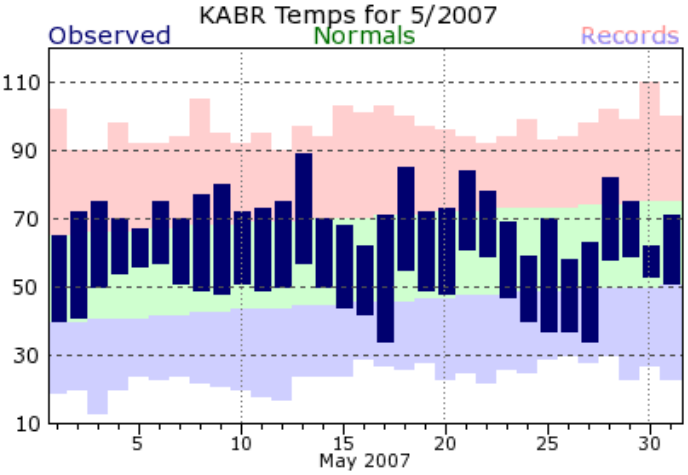
by Scott Doering

Historical climate graphs and tables have been added to our home webpage, www.weather.gov/abr.



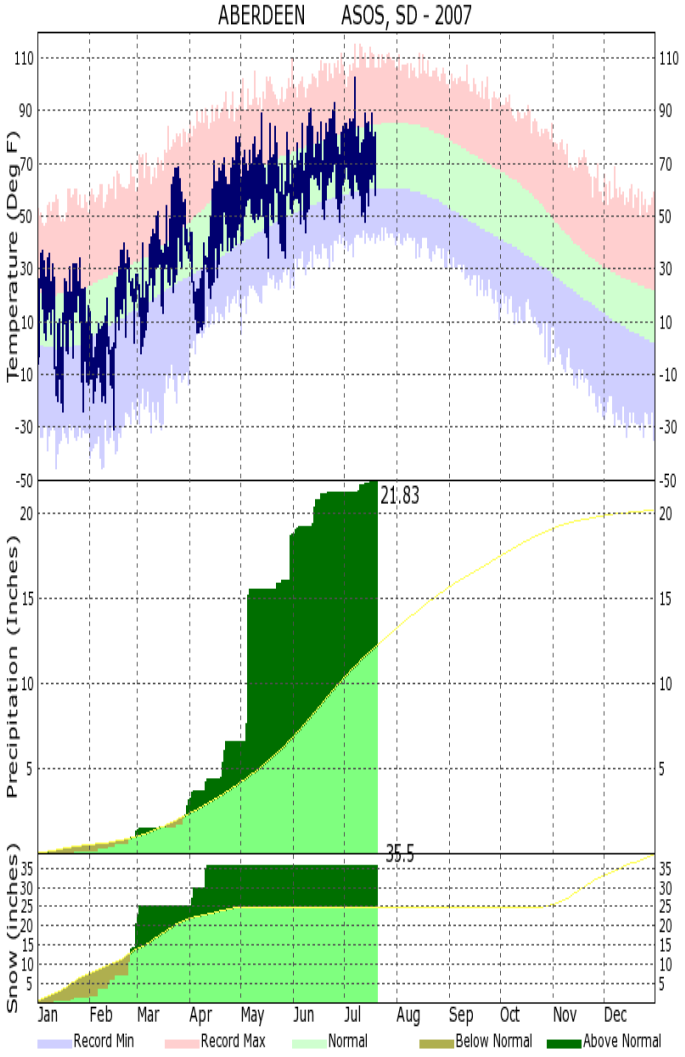


Simply click one of the graphs above to open a climate page that displays monthly climate information for the current year. From this page you can also change locations to Aberdeen, Mobridge, Pierre, Sisseton, or Watertown. Upon selecting a city, you can then choose a monthly graph. There is an option to view information from 2006.

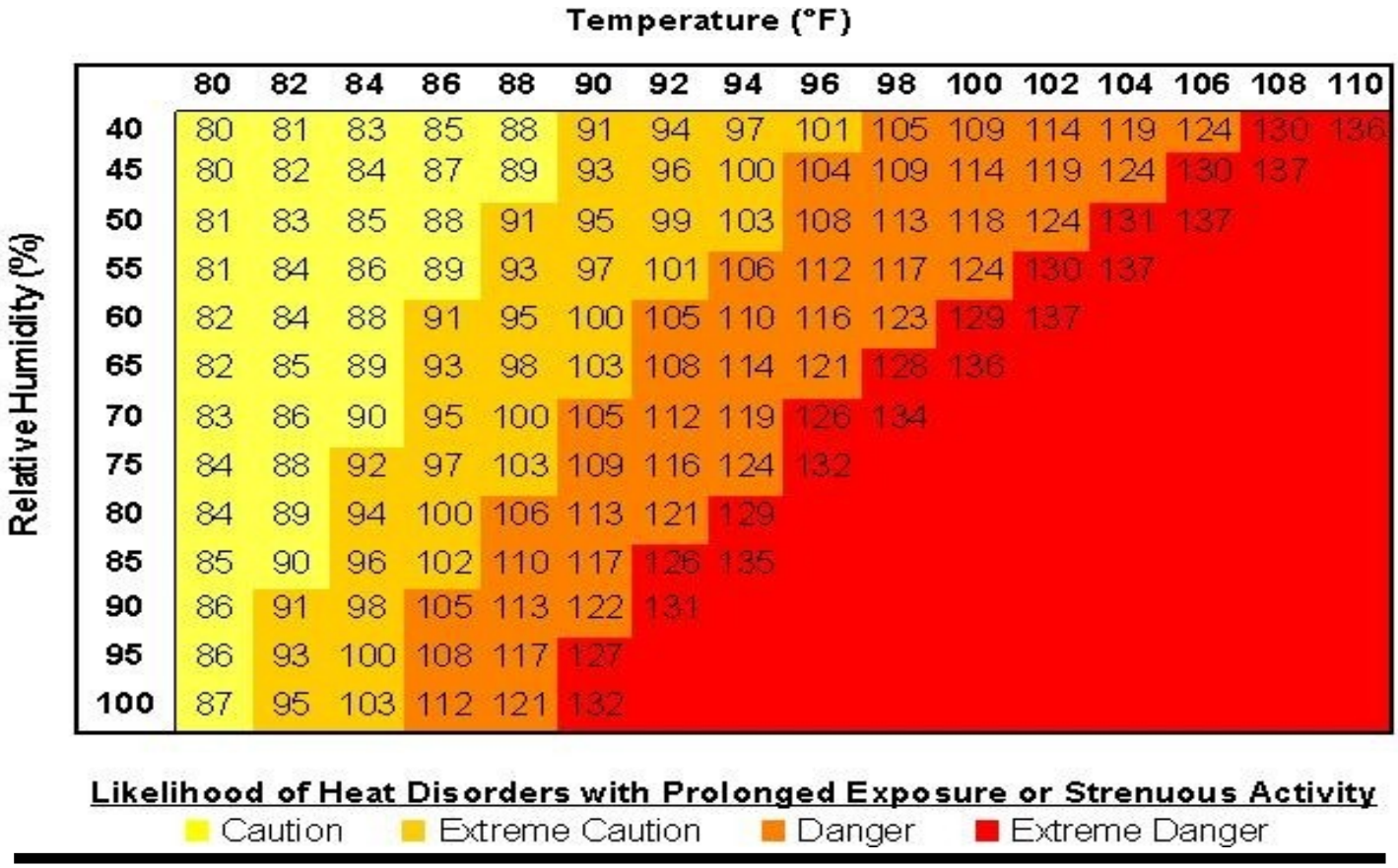


Below this graph is a table that lists the observational temperatures and precipitation. Also listed are normal temperatures as well are record highs and lows.

There is an option to view climate information for the entire year by choosing the Yearly Button. This page will contain up-to-date climate information.



Heat Index Chart



National Weather Service
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Aberdeen SD 57401

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Ah, summer, what power you have to make us suffer and like it.

~ Russel Baker

We're on the Internet
www.weather.gov/aberdeen